AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method for determining a target exhaust temperature for a gas turbine comprising:

a. determining a target exhaust temperature based on a compressor pressure condition;

b. determining a temperature adjustment to the target exhaust temperature based on at least one parameter of a group of parameters consisting of specific humidity, compressor inlet pressure loss and turbine exhaust back pressure; and

c. adjusting the target exhaust temperature by applying the temperature adjustment.

2. (Original) A method as in claim 1 wherein determining the temperature adjustment is based on a schedule having a delta specific humidity input and a delta exhaust temperature output, wherein the delta specific humidity input is a difference between an actual specific humidity at an inlet to the gas turbine and a predefined specific humidity level, and the delta exhaust temperature output is a temperature difference to be summed with the target exhaust temperature in step (c).

3. (Original) A method as in claim 1 wherein determining the temperature adjustment is based on a schedule having inputs of delta inlet pressure loss and the current compressor condition, and an output of a delta exhaust temperature output, wherein the delta inlet pressure loss input is a difference between an actual inlet pressure loss to the gas turbine and a predefined inlet pressure loss level, and the delta exhaust temperature output is a temperature difference to be summed with the target exhaust temperature in step (c).

4. (Original) A method as in claim 1 wherein determining the temperature adjustment is based on a schedule having inputs of delta back pressure and the current compressor condition, and an output of a delta exhaust temperature output, wherein the delta back pressure input is a difference between an actual back pressure to the gas turbine and a

predefined back pressure level, and the delta exhaust temperature output is a temperature difference to be summed with the target exhaust temperature in step (c).

5. (Original) A method as in claim 1 further comprising repeating steps (a) to (c) to generate a plurality of the target exhaust temperatures, and selecting one of the plurality of target exhaust temperatures to be applied to control the gas turbine.

6. (Original) A method as in claim 1 wherein the target exhaust temperature is applied by a gas turbine controller to determine a turbine firing temperature.

7. (Original) A method as in claim 1 wherein the target exhaust temperature is applied by a gas turbine controller to determine a fuel flow to a combustor of the gas turbine.

8. (Original) A method as in claim 1 wherein the compressor pressure condition is compressor pressure ratio.

9. (Original) A method as in claim 1 wherein steps (a) to (c) are repeated periodically during operation of the gas turbine.

10. (Original) A method for determining a target exhaust temperature for a gas turbine comprising:

a. determining a target turbine exhaust temperature based on a compressor schedule having as an input compressor pressure ratio and as an output target turbine exhaust;

b. adjusting the output target turbine exhaust temperature to compensate for a load condition of the gas turbine;

c. determining a temperature change to be applied to the output target turbine exhaust temperature wherein the temperature change is derived from at least one parameter of a group of parameters consisting of specific humidity, compressor inlet pressure loss and turbine exhaust back pressure;

d. changing the target exhaust temperature by the temperature change, and

e. controlling the gas turbine based on the changed target exhaust temperature.

11. (Original) A method as in claim 10 wherein determining the temperature change is based on a schedule having a delta specific humidity input and a delta exhaust temperature

output, wherein the delta specific humidity input is a difference between an actual specific humidity at an inlet to the gas turbine and a predefined specific humidity level, and the delta exhaust temperature output is a temperature difference summed with the adjusted target turbine exhaust temperature in step (c).

12. (Original) A method as in claim 10 wherein determining the temperature change is based on a schedule having inputs of delta inlet pressure loss and the current compressor condition and an output of a delta exhaust temperature output, wherein the delta inlet pressure loss input is a difference between an actual inlet pressure loss to the gas turbine and a predefined inlet pressure loss level, and the delta exhaust temperature output is summed with target turbine exhaust prior to step (b).

13. (Original) A method as in claim 10 wherein determining the temperature change is based on a schedule having inputs of delta back pressure and the current compressor condition, and an output of a delta exhaust temperature output, wherein the delta back pressure input is a difference between an actual back pressure to the gas turbine and a predefined back pressure level, and the delta exhaust temperature output is summed with target turbine exhaust prior to step (b).

14. (Original) A method as in claim 10 further comprising repeating steps (a) to (d) to generate a plurality of the target turbine exhaust temperatures, and selecting one of the plurality of target turbine exhaust temperatures to be applied to control the gas turbine.

15. (Original) A method as in claim 10 wherein the target turbine exhaust temperature is applied by a gas turbine controller to determine a turbine firing temperature in step (e).

16. (Original) A method as in claim 10 wherein the target turbine exhaust temperature is applied by a gas turbine controller to determine a fuel flow to a combustor of the gas turbine.

17. (Cancelled)

18. (Original) A method as in claim 10 wherein steps (a) to (e) are repeated periodically during operation of the gas turbine.

19. through 22. (Cancelled)